

CCGGGGGAGGCTCTTAGGATGTTGTGCTCCGCGGGGCTCAGACGAAATCTTCTGTGAATGGAAG
AAATGCTTCCAAGCAAACAGCCACTACCAGAACAACCTGAGAAAGAGGCCAGAGCGCGAGTTCTC
AAACCCTGATTTTCGCAGGAGCCGGAGGGGGATATTGGAGAGAAGGTATTTCCAGTCACGCGCAG
TAACAGACCAGCCAAGGACCAGGACTGGAGTTCTGTTCTACAACGGTGGAACAGTGAACGGTCT
CCAAAGAGATGGAGTACGACGCTTACAACGACTCCGGCATCTATGATGATGAGTACTCTGATGG
CTTTGGCTACTTTGTGGACTTGGAGGAGGCGAGTCCGTGGGAGGCCAAGGTGGCCCCGGTCTTC
CTGGTGGTGATCTACAGCTTGGTGTGCTTCCTCGGTCTCCTAGGCAACGGCCTGGTGATTGTCA
TCGCCACCTTCAAGATGAAGAAGACCGTGAACACTGTGTGGTTTGTCAACCTGGCTGTGGCCGA
CTTCCTGTTCAACATCTTTTTTGCCGATGCACATCACCTACGCGGCCATGGACTACCACTGGGTG
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TCCTGCTGACTGTCATCAGCTTTGACCGCTGCATCTCCGTGCTGCTCCCCGTCTGGTCCCAGAA
CCACCGCAGCATCCGCCTGGCCTACATGACCTGCTCGGCCGTCTGGGTCTTGGCTTTCTTCTTG
AGCTCCCCGTCCCTTGTCTTCCGGGACACCGCCAACATTCATGGGAAGATAACCTGCTTCAACA
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GTACAGCAGACACGTGGCGGTCACTGTACCCCGCTTCCTTTGCGGCTTCCTGATCCCCGTCTTC
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AGAAGCCCTTCAAGATCATCATCACCATCATCATCACCTTCTTCCTCTGCTGGTGCCCCCTACCA
CACCCTCTACCTGCTGGAGCTCCACCACACAGCTGTGCCAAGCTCTGTCTTCAGCCTGGGGCTA
CCCCCTGGCCACGGCCGTCGCCATCGCCAACAGCTGCATGAACCCCATTCGTGTACGTCTTCATGG
GCCACGACTTCAGAAAATTCAAGGTGGCCCTCTTCTCCCGCCTGGCCAACGCCCTGAGTGAGGA
CACAGGCCCTCCTCCTACCCCAAGTCACAGGAGCTTCACCAAGATGTCGTCTTTGAATGAGAAG
GCTTCGGTGAATGAGAAGGAGACCAGTACCCTCTGAACCTCACCTGGGAATGTCCCCCAAAGGT
GCCACGGCCCAGGGACGCCTAGGGACTTGTCTCCGGAAGTGGGAGACATGCCGGGAGCCTTTGG
GAATGCTCCAACGCCCCACTGAATTTTGCACAAGGCGGCTCATGTTTTAAGTGGGGTTCCCAAGT
GTGGACACTCTTCCAGTAAAATGGCAGGCAAGCAACCCGAGCTTCTACAACAGGAGCAGGGGAC
CGACTGTGACTGACTCAGAAAAGGGAGCATTTCTGAAGCCAAGACTTGAGCTGTGACCAACATA
CAGGCCAACATACAGATGTCGCCGTGCATGCCCTGAACATGCTGCGCAGTTTTTCGTGGGTGAG
GAAGTTACCGCAAACCCATTGCAGACCTGTTATGGCAACATGACAGTCAAACCAACAAAGCCCA
ATACACCCCAACATCCTCCAAGACCTTGACTTTGGATTTTCAGAAGAACGGGGGGTGGGGGGAAC
GAGGACCTGAGGGTTAATTTTCGAGCTTGGCGAAGCC (SEQ ID NO:1)

FIGURE 1

underlined = deleted in targeting construct

[] = sequence flanking Neo insert in targeting construct

CCGGGGGAGGCTCTTAGGATGTTGTGCTCCGCGGGGCTCAGACGAAATCTTCTGTGAATG
GAAGAAATGCTTCCAAGCAAACAGCCACTACCAGAACAACCTGAGAAAGAGGCCAGAGCGC
GAGTTCTCAAACCCTGATTTTCGCAGGAGCCGGAGGGGGATATTGGAGAGAAGGTATTTCC
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GAACAGTGAACGGTCTCCAAAG[AGATGGAGTACGACGCTTACAACGACTCCGGCATCTA
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GGAGGCCAAGGTGGCCCCGGTCTTCCTGGTGGTGTGCTTCCCTCGG
TC]TCCTAGGCAACGGCCTGGTGAATGTCATCGCCACCTTCAAGATGAAGAAGACCGTGA
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TGCACATCACCTACGCGGCCATGGACTACCACTGGGTG[TTGCGGAAGGCCATGTGCAAG
ATCAGCAACTTCTTGCTCAGCCACAACATGTACACCAGCGTCTTCCTGCTGACTGTCATC
AGCTTTGACCGCTGCATCTCCGTGCTGCTCCCCGTCTGGTCCCAGAACCACCGCAGCATC
CGCCTGGCCTACATGACCTGCTCGGCCGTCTGGGTCTGGCTTTCTTCTTGAGCTCCCCG
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TTCATCATCACGGCCTGCTACCTTACCATCGTCTTCAAGCTGCAGCGCAACCGCCTGGCC
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ATTCTGTACGTCTTCATGGGCCACGACTTCAGAAAATTCAAGGTGGCCCTCTTCTCCCGC
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CACCAAGATGTCGTCTTTGAATGAGAAGGCTTCGGTGAATGAGAAGGAGACCAGTACCCT
CTGAACCTCACCTGGGAATGTCCCCCAAAGGTGCCACGGCCCAGGGACGCCTAGGGACTT
GTCTCCGGAAGTGGGAGACATGCCGGGAGCCTTTGGGAATGCTCCAACGCCCACTGAATT
TTGCACAAGGCGGCTCATGTTTTAAGTGGGGTTCCTAAGTGTGGACACTCTTCCAGTAAA
ATGGCAGGCAAGCAACCCGAGCTTCTACAACAGGAGCAGGGGACCGACTGTGACTGACTC
AGAAAAGGGAGCATTTCTGAAGCCAAGACTTGAGCTGTGACCAACATACAGGCCAACATA
CACGATGTCGCCGTGCATGCCCTGAACATGCTGCGCAGTTTTTCGTGGGTGAGGAAGTTAC
CGCAAACCCATTGCAGACCTGTTATGGCAACATGACAGTCAAACCAACAAAGCCCAATAC
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GAGGACCTGAGGGTTAATTTTCGAGCTTGGCGAAGCC

FIGURE 2A

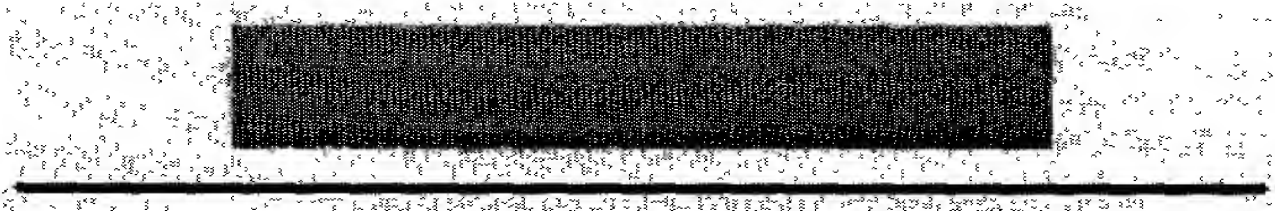
Gene Sequence Structure
*

422 bp

Sequence Deleted

576 bp

Size of full-length
cDNA: 1892 bp



Targeting Vector* (genomic sequence)

Construct Number: 993

Arm Length:
5': 2.3 kb
3': 1.9 kb

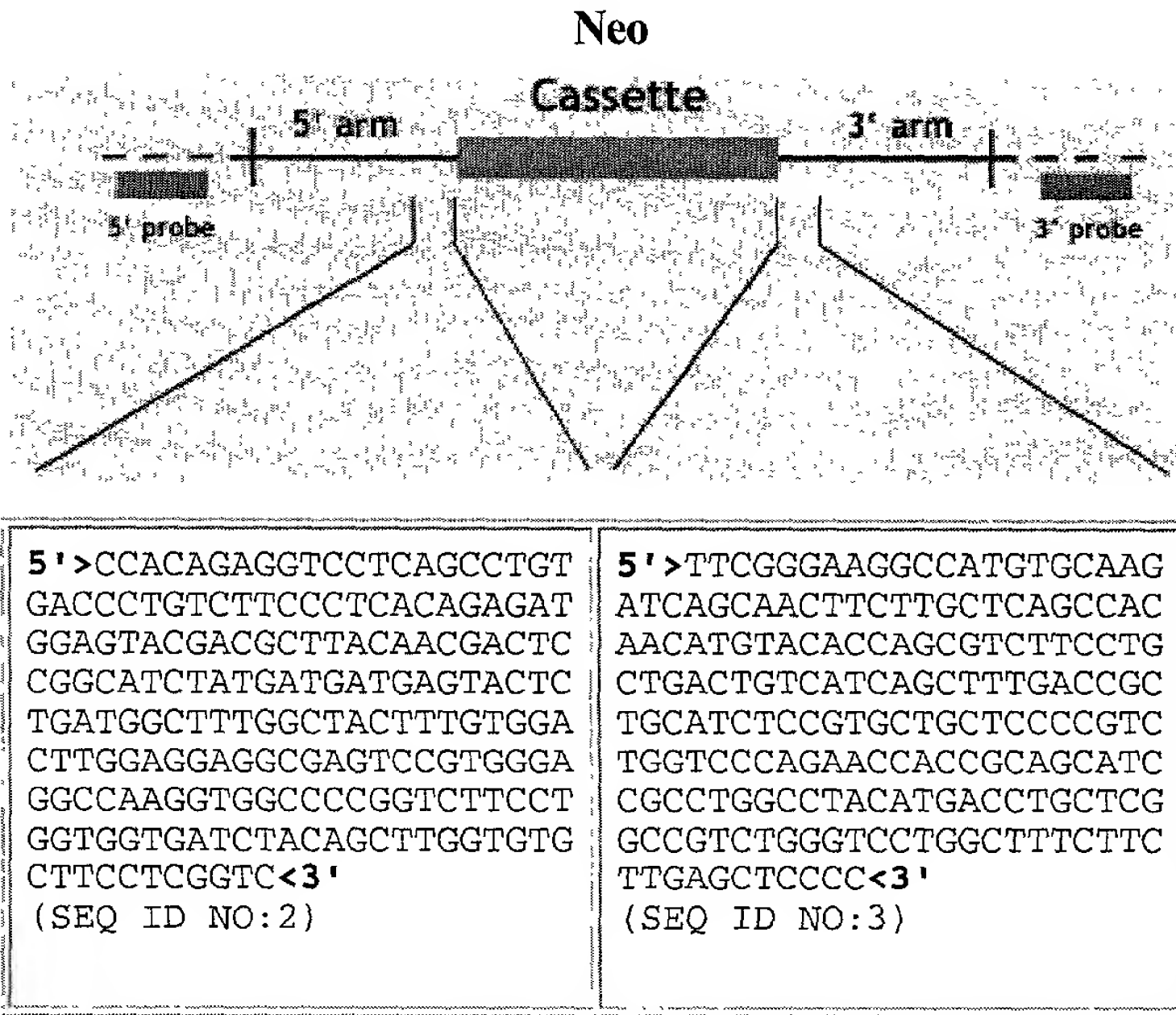
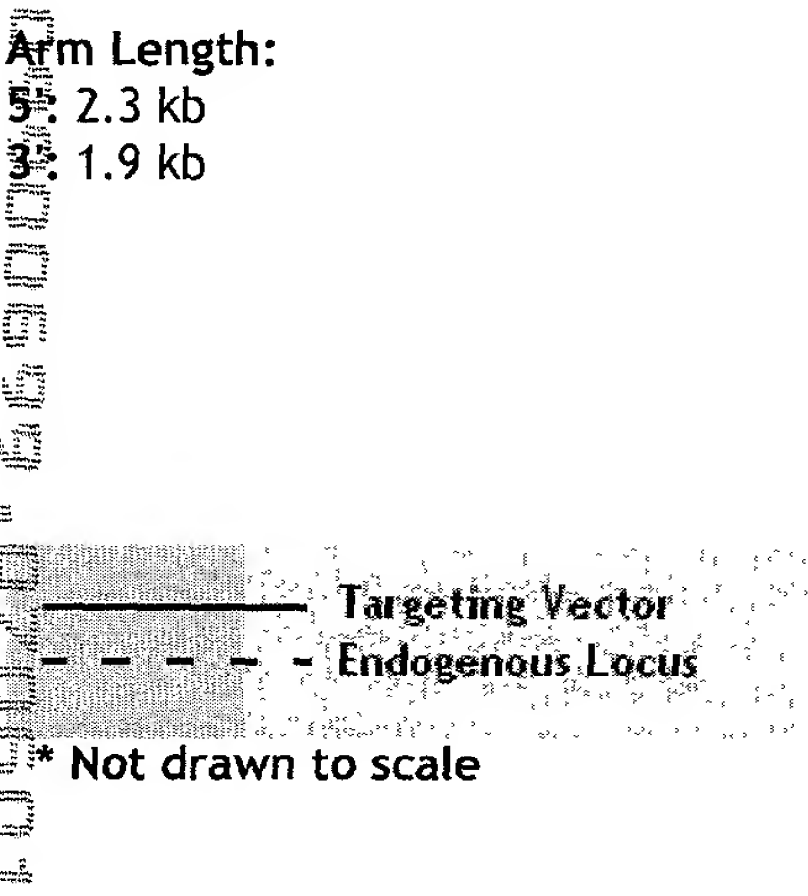


FIGURE 2B